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REMARKS

The present application stands finally rejected per the Office Action dated May 29, 2003. The final rejection is in response to Applicants response dated February 4, 2003, which itself is in response to the Office Action dated November 4, 2002. The Final Rejection has been reviewed and the comments of the US Patent Office Considered.

As a result of the present amendments, claims 1-14 of record have been cancelled and replaced with new claims 15-58. The new claims include two independent claims: 15 and 37. The new claims correspond to and supercede the proposed claims provided to the Examiner during the in-person interview discussed below. Consideration of the new claims and remarks and prompt passage to issuance is respectfully requested.

Applicants wish to thank both Examiner Azarian and Primary Examiner Patel for their courtesy extended during an in-person interview on October 10, 2003. During the interview, the present application in light of the prior art reference Hiramatsu was discussed in detail. Potentially allowable subject matter was identified. In particular, the instant features of transmitting manually entered characters back to OCR means, limiting the database according to the characters and querying the now limited database with the OCR means, a second time, were identified. It was noted that while Hiramatsu does have interaction between an encoder and a database, the relationship is substantially different. Namely, in the present invention, the determination of unread characters is ultimately made by the OCR means, whereas in Hiramatsu, the determination is made by the encoder. Applicants provided Examiner Azarian with a proposed set of claims, highlighting the above features.

Applicants wish to thank Examiner Azarian for the courtesy he extended during a telephone conversation on September 24, 2003. During the telephone conversation, Examiner Azarian indicated that the proposed new claims would in principle be allowable over Hiramatsu, however, an updated search is required. In light of the numerous changes to the originally filed claims, Examiner Azarian recommended that a continuation be filed. Accordingly, a Request for Continued Examination accompanies this response, along with new claims, amendments to the specification, and remarks.

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Amendments to the Specification

Amendments were made to the specification to bring it more into conformance with English grammar and syntax as well as United States patent practice. No new matter was added. Given the number of corrections, a substitute specification was created.

A new Abstract of the Disclosure is included with this response. Consideration and entry of the Abstract is requested.

Claim Rejections - 35 USC §103

The Examiner rejected claims 1-14 under 35 USC §103 as being unpatentable over Hiramatsu *et al.* (U.S. Patent 5,697,504) in view of Danielson *et al.* (U.S. Patent 5,805,474). This rejection is traversed. Claims 1-14 have been cancelled by way of this amendment and replaced with new claims 15-58. Accordingly, this rejection is now believed moot. Claims 15-58 are believed allowable over the prior art of record at least for the reasons set out above. Applicants believe that a more thorough discussion of the prior art of record with respect to the currently pending claims would facilitated allowance of the present application.

Of the references relied upon for the outstanding rejection, Hiramatsu is the primary reference. The method of Hiramatsu is set out in figure 3. As depicted, a postal matter P is subject to an electronic reading 2 in order to determine a user code (zip code (41, figure 2, see user code area 43 (col. 3, lines 35-50))). If the code is not unambiguously read, an image is sent to a video coding apparatus 7 while the physical postal matter is held in a delay loop 4 (see col. 4, lines 39-50 and lines 58-61). At the video coding station, the encoder searches the postal matter for the missing information and manually enters it via a keyboard or the like (see col. 4, lines 51-57). Upon receipt of the coding information from the encoder, a bar code printer 3 is effected to print a bar code on the postal matter (see col. 4, lines 61-67). The bar code is subsequently read and the postal matter sorted accordingly (5, 6, figure 3). Accordingly, Hiramatsu relies upon the encoder to provide the missing information (in addition to the above, see col. 1, lines 13-16, 49-52, col. 2, lines 42-48, etc.).

The Examiner referred to column 5, lines 55-65 as an example of the retrying decoding with OCR means. This section of Hiramatsu discusses customary secondary

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reader procedures wherein processing is performed again, by the OCR means, without intervention from the encoder. Rather, another reader and/or different algorithms are employed. This process is fundamentally different from the present invention wherein encoder input is used in the OCR means retrying steps.

In more detail and with reference to figure 7, a display device 32 (figure 5) displays for the encoder an image of the postal matter as taken by the initial scan. The image includes, among other things, an image display area 72 comprising specific user code candidate area 44 or 45, an image display area 73 of the specific user code location, user code input area 74, and the whole image itself 75 (see col. 7, line 66 – col. 8, line 5). Image display area 72 comprises the destination address 81 (col. 8, lines 19-27). Image display area 73 comprises other display areas 77 and 78, themselves comprising specific zip code 42 and specific address code location 43 (col. 8, lines 27-33), respectively. User code input area 74, displayed immediately below image display area 73, comprises a zip code input area 79 and an address code input area 80 (col. 8, lines 39-44). In zip code input area 79, the results of the zip code (42) scan are displayed. Likewise, in address code input area 80, the results of the address code scan are displayed (col. 8, lines 45-49).

In regards to unread characters, blank boxes are displayed and blinked until the encoder enters the missing information. The encoder determines which characters are missing, scans the display with all the information presented above to locate the missing characters, locates the missing characters and enters the missing characters in the appropriate blinking box (col. 10, lines 43 – col. 11, line 22). As the missing characters are entered by the encoder, the blinking of the blank boxes ends (col. 10, lines 51-54 and figure 11, col. 12, line 56 – col. 13, line 2). For purposes of emphasis, the Hiramatsu method determines only if a character was entered, and upon confirmation that a character was entered, halts the blinking (see steps of figure 11). Upon entry of the missing characters, the postal matter can be further processed.

In contrast, the present invention does not rely upon the encoder to complete the reading process and provide all the missing unambiguously read information. Rather, in the present invention, the encoder merely provides assistance to the OCR means and it is up to the OCR means to determine the missing characters. With reference to page 7, line 14 *et seq.* "In the case of a negative decision (No), the invention provides for another

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automatic evaluation, the information obtained through video coding is available to the OCR processor in addition to the information shown on the image." Various embodiments on using this information is found throughout the specification.

The new independent claims, method claim 15 and apparatus claim 37, specifically recite retrying decoding with the OCR means. Such limitations are missing in Hiramatsu. Relevant portions of the claims are repeated below with emphasis on relevant language. Claim 15 reads:

- if said portion is not unambiguously decoded,
 - i. transmitting said image to an video coding workstation;
 - ii. manually entering a prespecified and fixed number of alpha/numeric characters following a predetermined coding rule;
 - iii. querying a database via a search based upon said fixed number of keystrokes;
 - iv. obtaining a limited set of database entries, said set limited by said search;
 - v. transmitting said limited set back to said OCR means; and
- retrying decoding of said image with said OCR means based upon said limited set so as to produce an unambiguously decoded portion.

Claim 37 reads:

- b. an OCR processor associated with said scanner and an address directory, said processor comprising means for receiving said image, means for decoding said image and means for determining if said decoding successfully arrived in a set of characters having a match in said address directory, means for receiving rule based characters and for limiting a plurality of database entries based upon said rule based characters, means for redecoding said image and means for determining if said redecoding successfully arrived in a set of characters having a match in said address directory; and

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In the May 29, 2003 Final Rejection, the Examiner, argues that "And Fig. 8 to 10, column 3, lines 12-20, show the flow chart for image reader, after image reader fails to recognize, is corrected /input by video coding." Reference was then made to column 12, lines 38 - 64 which discusses verification of the encoder input data with a database. Hiramatsu continues in that regardless of whether the data is verified or not (found in the database or not), the code and information based thereon is transferred to a bar code and printed on the postal matter (see col. 12, lines 34-42).

Accordingly, in Hiramatsu, the encoder's entered information is merely confirmed or not confirmed via a look up in a database without participation by the OCR means.

In contrast to Hiramatsu, the instant method relies upon the OCR means to determine the corrected data. The encoder information is not subject to verification, and in fact serves a completely different purpose, namely, to limit the database entries. With a limited database search field, the probability of finding a match substantially increases.

At least for the reasons set out above, Hiramatsu does not disclose all the limitations of the independent claims. Further there is no suggestion within Hiramatsu or Danielson to modify Hiramatsu such that the Hiramatsu OCR means rather than the encoder determines and provides the missing information. The intent of Hiramatsu, as detailed throughout the patent (col. 1, lines 13-16, col. 1, lines 49-52; col. 2, lines 42-48, etc.), is for the encoder to perform the above detailed steps. Danielson does not discuss reusing an OCR means for data verification. Accordingly, Hiramatsu, alone or in combination with Danielson, is not available as a prior art reference. Therefore, reconsideration and withdrawal of the outstanding rejection in light of the above amendments and remarks is respectfully requested.

Conclusion

The present response is intended to correspond with the Revised Amendment Format. Applicants understand that with the Revised Amendment Format, the provisions of 37 CFR §1.121 are waived. Should any part of the present response not be in full compliance with the requirements of the Revised Amendment Format, the Examiner is asked to contact the undersigned for immediate correction.

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In the event that the transmittal form is separated from this document and the Patent Office determines that an extension of time and/or other relief is required, Applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees in connection with the filing of this document to Deposit Account No.: 502464 referencing client reference: 1996P08661WOUS. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

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